Installation & Maintenance

Simple Solution™ Water Recycler Kit

Part #AVAVWR1, VWR2, VWR2X, VWR3, VWR3X

Description:

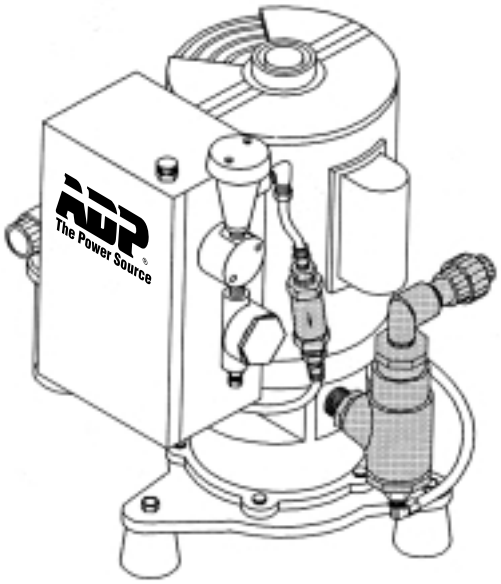
The liquid-ring vacuum pump is the preferred vacuum system for dentistry because of it's low maintenance and reliability. This type of pump does however, use considerable amounts of water which can be a problem where water and sewer rates are high, scarce or where septic tanks are used.

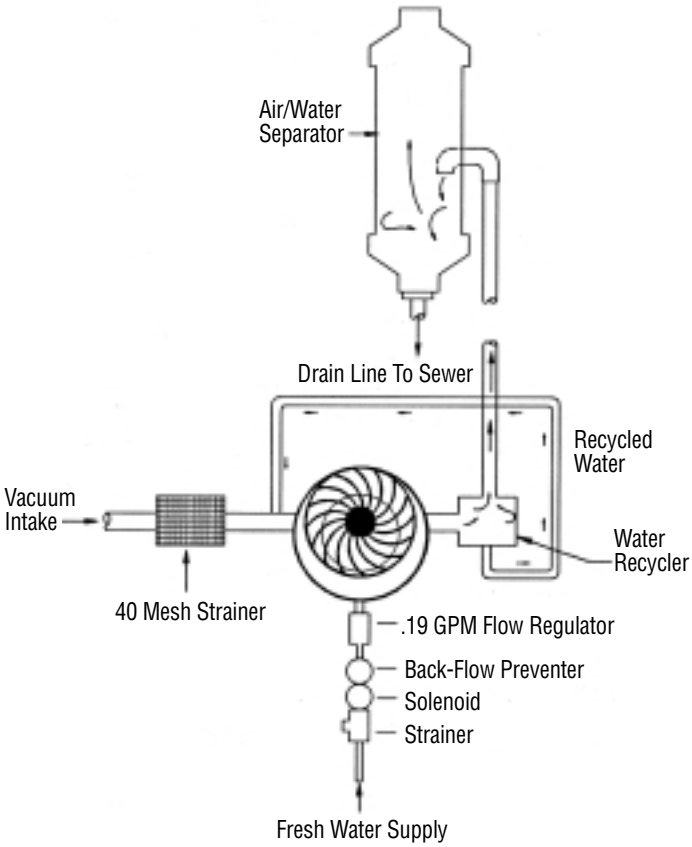
The Apollo Dental Products Simple Solution™ Water Recycler reduces vacuum pump water consumption by 70 percent or greater when compared with standard vacuum pump installation.

The Simple Solution™ Water Recycler is a simple and reliable design, purely mechanical, with few component parts. Fewer components means less things to go wrong and much higher reliability.

Simple Solution™ Water Recycler Operation:

The operating principle of the ADP Simple Solution™ Water Recycler is quite simple. As always, a water flow regulator is placed on the pump to reduce the fresh water consumption to .19 gallons per minute. The next step is to place a miniature water recycler chamber on the exhaust of the pump. As the air/water mixure exits the pump, the recycled water then re-enters the pumps housing and maintains the liquid ring.





Installation:

1. **Twin and Triple Pumps Only.** Choose an appropriate location to mount the exhaust separator on the wall. The tank must be located at least 2" above a "P" trap and 18" above a floor sink connection, but close enough to the pumps so that all hoses will reach.

2. Use the provided screws and anchors to mount the tank to the wall. The anchors are made for use in sheetrock, plaster, concrete, or brick and require 3/16" holes for the anchors. Push the anchors into the holes until flush, then place the tank on the wall and install screws.

3. Remove 1/8" pipe plug from the backside of each intake manifold, and replace with the provided 1/8" mpt x 1/4" polyflow fitting. Polyflow fitting should point in the 7 o'clock position. For manifolds without backside plugs, install a 1/4" brass street tee under the gauge. Then attach gauge to top threads and the polyflow fitting to side threads.

   NOTE: For intake manifold with 1/4" mpt use the provided 1/4" x 1/8" bushing.

4. Remove the 3/4" PVC hose adapter from the exhaust elbow on each pump.

   NOTE: For pumps other than ADP, remove all exhaust side fitting from the vacuum housing.

5. **For Pumps Other Than ADP.** Securely tighten the provided 3/4" mpt x 3" nipple into the exhaust port.

6. Securely tighten the provided 3/4" fpt x 1" slip fitting into the exhaust nipple of each pump. Make sure that this fitting is tight.

7. Cement the recycler assembly into each 1" slip fitting with PVC glue in a vertical position as shown in the illustration on Page 3.

8. Attach the 1/4" polyflow to the polyflow fitting that was installed in Step 3.

   NOTE: Hand tighten only. Do not wrench down on either compression fitting.

9. Cut out a 2" section of polyflow tubing from the fresh water line between the back flow preventer and the impeller housing fresh water inlet. Install the flow regulator assembly aith flow arrow facing down.

10. Cement the 3/4" PVC hose to the exhaust with PVC glue and route to drain or air water separator.

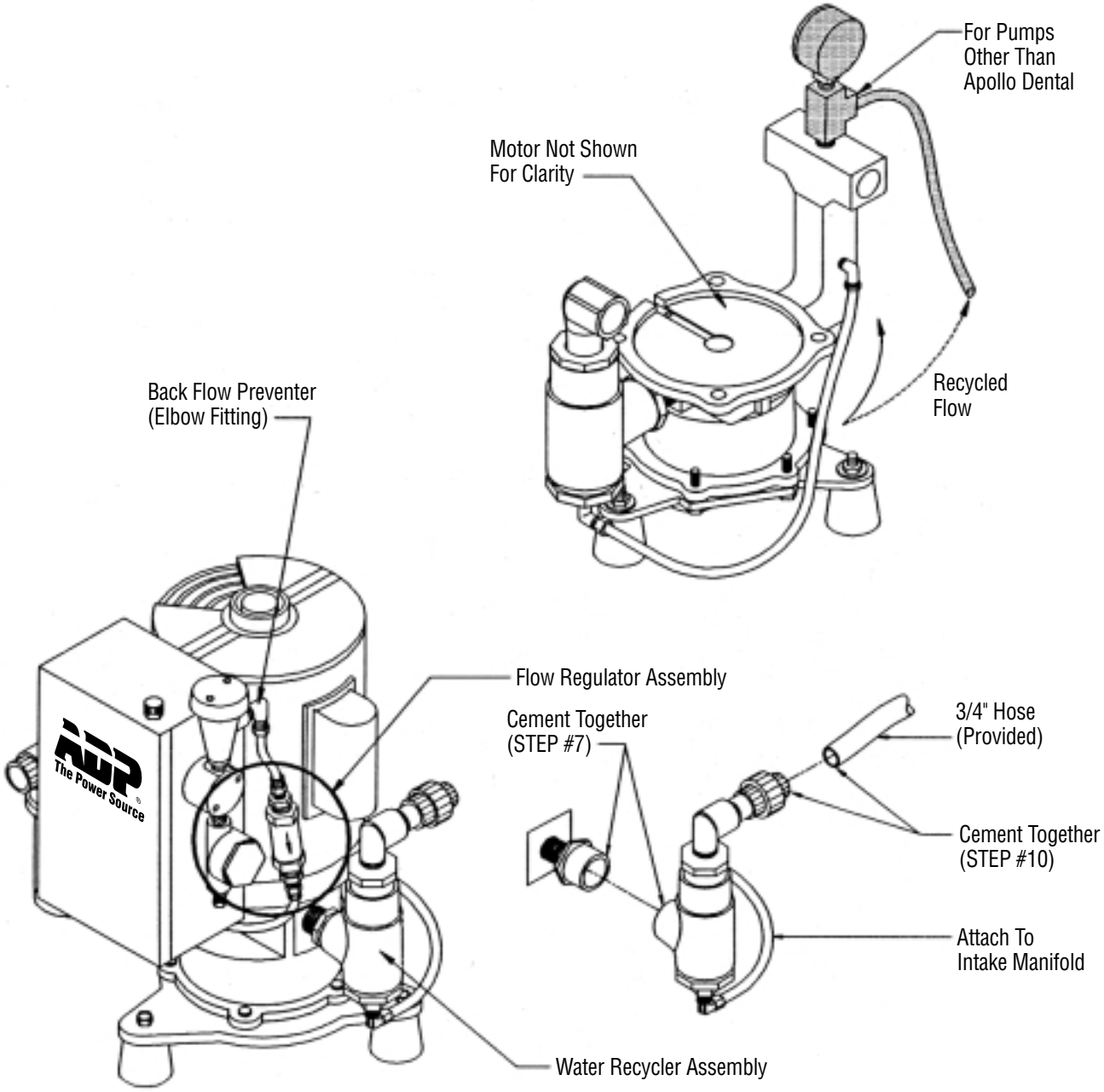
11. Repeat steps 3 through 10 for each pump.

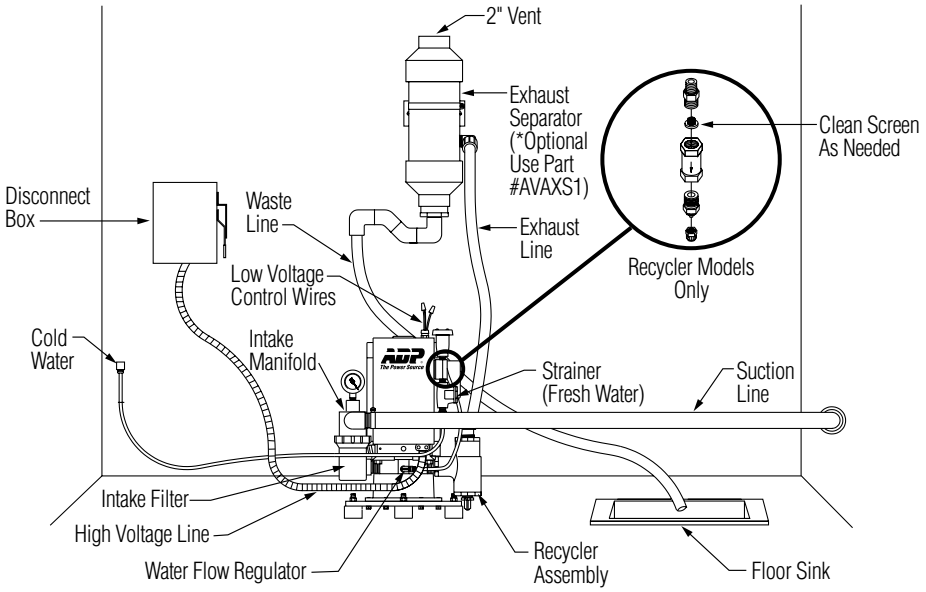
12. **Twin and Triple Pumps Only.** Cement 3/4" hose provided to the bottom water drain of the separator with PVC glue. Connect the other end of the hose to a "P" Trap or secure it in a floor sink.

    NOTE: Some local codes may require a 1 inch air gap for water waste connection.

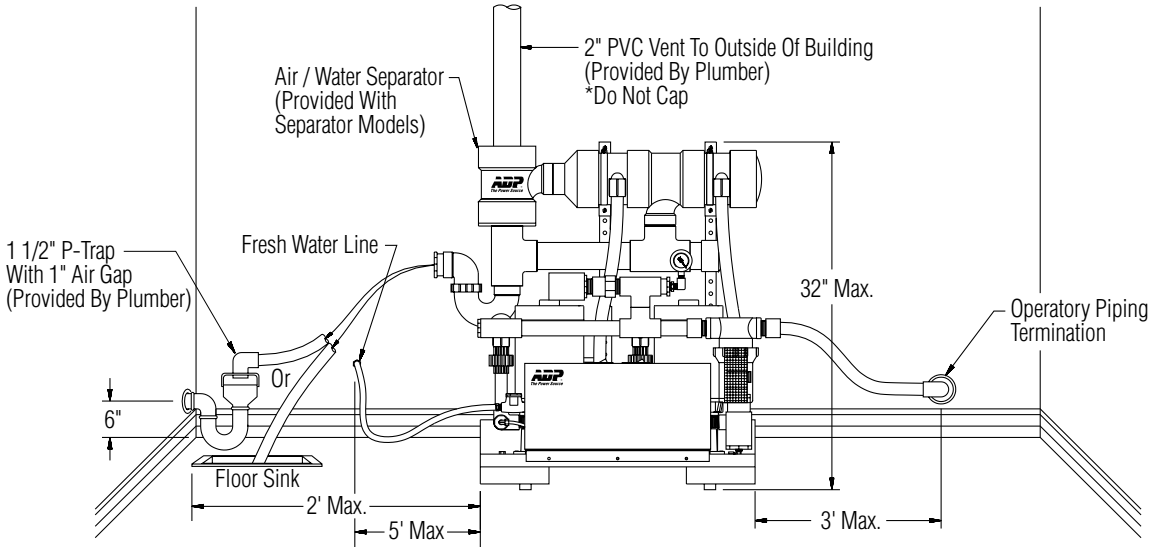
13. **Twin and Triple Pumps Only.** Use 2" pipe to vent the air outlet on the top of the recycler to the outdoors.

14. Proceed to Page 5 for installation on initial start-up.


For Pumps Other Than Apollo Dental
Motor Not Shown For Clarity
Recycled Flow
Back Flow Preventer (Elbow Fitting)
Flow Regulator Assembly
Cement Together (STEP #7)
3/4" Hose (Provided)
Cement Together (STEP #10)
Attach To Intake Manifold
Water Recycler Assembly
The Power Source



Typical Single Vacuum Installation With Recycler/Separator


2" PVC Vent To Outside Of Building (Provided By Plumber) *Do Not Cap
Air / Water Separator (Provided With Separator Models)
1 1/2" P-Trap With 1" Air Gap (Provided By Plumber)
Fresh Water Line
32" Max.
Operatory Piping Termination
Or
6"
Floor Sink
2' Max.
5' Max
3' Max.

Typical Twin Vacuum Installation With Recycler/Separator

Initial Start-Up:

1. Start the pump and check for leaks and proper pump performance.

   The Simple Solution™ Recycler is now an integral part of the vacuum system and will automatically start and stop with the pump.

Maintenance:

The only maintenance recommended for the new Simple Solution™ Recycler is the annual replacement of the 1/4" polyflow return line that runs from the intake manifold to the air/water separation chamber.

Warranty Information: 90 Days

All ADP accessories are thoroughly inspected and tested in accordance with rigid specifications and standards. Our accessories are guaranteed against any defective material and workmanship from the date of shipment; provided that the installation, operation, and maintenance is done in accordance with ADP procedures as outlined in our Installation and Maintenance Guides. Warranty cards must be returned to ADP within ten days of installation to effect warranty. No other warranties or guarantees, expressed or implied are made.

ADP's obligation under the warranty is to provide parts for the repair or, at its option, to provide the replacement product (excluding labor). All special, incidental and/or consequential damages are excluded. We will not issue credit for accessories without first attempting to correct the problem in the field. Written notice of breach of warranty must be given to ADP within the warranty period. The warranty does not cove damage resulting form improper installation or maintenance, accident or misuse. The warranty does not cover damage resulting from the use of cleaning, disinfecting or sterilizing chemicals and processes. The warranty does not cover vacuum failures due to hard water deposits. Failure to follow instructions provided in ADP's Installation and Maintenance Guides may void the warranty.